

A.) AMENDMENTS TO THE CLAIMS:

1. (currently amended) A method of operating a router in ~~an~~ a high-speed access network infrastructure connected to a plurality of service networks, comprising ~~the steps of:~~
receiving an incoming packet with a source address;
comparing the source address of the incoming packet to network addresses allocated to subscribers of services provided by a the plurality of service network networks; and
if when the source address matches a network address allocated to a subscriber ~~subscribers~~ of services provided by ~~the~~ a service network, forwarding the packet to a router in the service network based only on the source address.
2. (previously presented) The invention of claim 1 wherein the source address of the incoming packet is assigned to a network access device associated with the subscriber of services provided by the service network.
3. (previously presented) The invention of claim 1 wherein the service networks utilize the Internet Protocol and wherein the addresses are Internet Protocol addresses.
4. (previously presented) The invention of claim 3 wherein the plurality of service networks are operated by different Internet Service Providers.
5. (previously presented) The invention of claim 3 wherein the plurality of service networks offer access to different Internet Protocol-based services.
6. (previously presented) The invention of claim 3 wherein the access network infrastructure comprises a hybrid fiber coaxial network.
7. (previously presented) The invention of claim 6 wherein the source address of the incoming packet identifies a network access device attached to the hybrid fiber coaxial network with a cable modem.

8. (currently amended) A method of operating ~~an~~ a high-speed access network infrastructure comprising a plurality of routers and connected to a plurality of service networks, comprising the steps of:

~~using destination-based routing packets based on their destination address~~ at the routers in the high-speed access network infrastructure except at one or more managed access point routers having connections to routers in the plurality of service networks; and

~~using policy-based routing packets~~ at the managed access point routers based only on their source address so that packets having a source address addresses allocated to subscribers of services provided by a service network will be forwarded to a router in the service network.

9. (currently amended) The ~~invention~~ method of claim 8 wherein packets between network access devices connected to the high-speed access network infrastructure are routed in the high-speed access network infrastructure using destination-based routing without being forwarded to a the service network.

10. (currently amended) The ~~invention~~ method of claim 8 wherein the high-speed access network infrastructure provides access to local services.

11. (currently amended) The ~~invention~~ method of claim 10 wherein packets associated with the local services are routed in the high-speed access network infrastructure using destination-based routing without being forwarded to a the service network.

12. (previously presented) The invention of claim 8 wherein the source address of the incoming packet is assigned to a network access device associated with the subscriber of services provided by the service network.

13. (previously presented) The invention of claim 8 wherein the service networks utilize the Internet Protocol and wherein the addresses are Internet Protocol addresses.

14. (previously presented) The invention of claim 13 wherein the plurality of service networks are operated by different Internet Service Providers.

15. (previously presented) The invention of claim 13 wherein the plurality of service networks offer access to different Internet Protocol-based services.